AGRICULTURAL BUSINESS MANAGEMENT-AGRISCIENCE

PROGRAM CIP CODE: 01.0100

All of the State-designated program preparation standards for the Agricultural Business Management-Agriscience program are listed below:

1.0 Develop a plan for a career in agricultural business and management

2.0 Prepare for employment in agricultural business and management

3.0 Participate in Supervised Agricultural Experiences [SAE]

4.0 Demonstrate oral communication skills

5.0 Demonstrate written communication skills

6.0 Evaluate the role of agricultural business and management industries in the economy

7.0 Demonstrate business and financial management practices needed in agricultural business and management industries

8.0 Evaluate leadership styles appropriate for the workplace

9.0 Participate in leadership activities as provided by the FFA organization

10.0 Demonstrate laboratory procedures and safety practices

11.0 Describe mammal health needs

12.0 Describe basic principles of nutrition

13.0 Examine the interaction of biological systems within the environment

14.0 Describe principles of plant growth production

15.0 Describe principles of animal growth and production

16.0 Describe food safety and processing practices

17.0 Describe advances in technology

18.0 Discuss bioethical issues

19.0 Use scientific processes to analyze data

20.0 Analyze the relationships within living systems

21.0 Investigate approved biotechnology techniques

22.0 Investigate approved practices of disease control

23.0 Investigate approved nutritional practices

24.0 Analyze the interaction among environmental and natural resources sciences

25.0 Investigate environmental and economical impacts of integrated pest management options

26.0 Investigate ethics in the agriculture industry

Food Products and Processing Systems Option A

These standards should be taught throughout the Agriscience program and will affect how the other standards are taught.

27.A Apply principles of food processing to the food industry

28.A Apply principles of food science to the food industry

29.A Plan, implement, manage, and/or provide services for the reservation and packaging of food and food products

30.A Identify processing, handling, and storage factors to show how they impact product quality and safety

Plant Systems Option B

These standards should be taught throughout the Agriscience program and will affect how the other standards are taught.

27.B Apply principles of anatomy and physiology to produce and manage plants in both a domesticated and a natural environment

28.B Address taxonomic or other classifications to explain basic plant anatomy and physiology

29.B Apply fundamentals of production and harvesting to produce plants

30.B Exercise elements of design to enhance an environment (e.g., floral, forest, landscape, farm)

Animal Systems Option C

These standards should be taught throughout the Agriscience program and will affect how the other standards are taught.

27.C Apply knowledge of anatomy and physiology to produce and/or manage animals in a domesticated or natural environment

28.C Recognize animal behaviors to facilitate working with animals safely

29.C Provide proper nutrition to maintain animal performance

30.C Know the factors that influence an animal's reproductive cycle to explain species response

31.C Identify environmental factors that affect an animal's performance

Natural Renewable Resources Systems Option D

These standards should be taught throughout the Agriscience program and will affect how the other standards are taught.

27.D Recognize importance of resource and human interrelations to conduct management activities in natural habitats

28.D Use effective venues to communicate natural phenomena to the public

29.D Apply scientific principles to natural resource management activities

30.D Employ knowledge of natural resource industries to describe production practices and processing procedures

31.D Practice responsible conduct to protect natural resources

Power, Structural and Technical Systems Option E

These standards should be taught throughout the Agriscience program and will affect how the other standards are taught.

27.E Apply physical science principles to engineering applications with mechanical equipment, structures, biological systems, land treatment, power utilization, and technology

28.E Apply principles of operation and maintenance to mechanical equipment, structures, biological systems, land treatment, power utilization, and technology

29.E Apply principles of service and repair to mechanical equipment, structures, biological systems, land treatment, power utilization, and technology

30.E Exercise basic skills in blueprint and design development to create sketches, drawings and plans.

31.E Read and relate structural plans to specifications and building codes

32.E Examine structural requirements to estimate project costs

33.E Develop skills required to use construction/fabrication equipment and tools

34.E Plan, implement, manage, and/or provide support services to facility design and construction; equipment design, manufacture, repair, and service; and agricultural technology

35.E Use the variety of tools available in computer systems to accomplish fast, accurate production in the workplace

36.E Use available power sources to plan and apply control systems

37.E Explain geospatial technology to demonstrate its applications

Agribusiness Systems Option F

These standards should be taught throughout the Agriscience program and will affect how the other standards are taught.

27.F Employ leadership skills to accomplish goals and objectives in an agribusiness environment

28.F Practice good record keeping to accomplish agribusiness objectives

29.F Apply generally accepted accounting principles and skills to manage budget, credit, and optimal application of agribusiness assets

30.F Employ agribusiness industry concepts and practices to manage inventory

31.F Utilize technology to accomplish agribusiness objectives

32.F Use sales and marketing principles to accomplish an agribusiness objective

Environmental Service Systems Option G

These standards should be taught throughout the Agriscience program and will affect how the other standards are taught.

27.G Use analysis procedures to plan and evaluate environmental service impacts

28.G Identify public policies and regulations impacting environmental services to determine their effect on facility operation

29.G Apply scientific principles to environmental services

30.G Operate environmental service systems (e.g., pollution control, water treatment, wastewater treatment, solid waste management, and energy) to manage a facility environment

31.G Use tools, equipment, machinery and technology to accomplish tasks in environmental services